

What do we mean by a VSO?



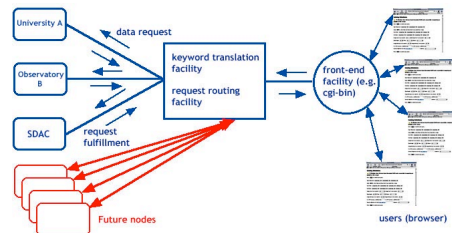
- It should be distributed (no more Grand Central Stations)
- It should let us search for and access data from multiple missions / observatories / instruments
- It should provide access to analysis software, instrument descriptions, &c. that enable use of the data for research
- It should be easy to add new data sets
- (Given the funding profile for this effort) it has to attempt to draw a “small box” around a small set of attributes that are useful for doing research

What a VSO Won't Do (at least at first)



- Data mining
- Intelligent agents (AI/neural nets)
 - Particular need for this in solar physics, where so much data is identical views of a changing scene: what changed, how, and when?
 - But these can be research opportunities
- Access control (ever) - The VSO will be in the business of giving data away.

What a Virtual Solar Observatory will look like



- We must be really smart:
 - Same model adopted by NVO, PDS; EGSO examining
- or maybe there's exactly one obvious way to do this
- Three parts:
 - distributed archives
 - **metadata** "broker" facility
 - Web-based front end
- Can have different implementations
 - Peer-to-peer
 - Grid
 - &c.
- Will be low-cost
 - No more than \$1.2M over next four years

And the steps are....



- Study (now - 2002 December)
 - Evaluation by Steering Committee
- Prototype/implementation (FY03, FY04)
 - Link three sites plus SDAC as prototype
 - Test usefulness/usability with community
- IFF the prototype proves useful to the community
 - Extended maintenance phase
 - Add nodes
 - Support new nodes, old nodes

Some of the people involved in the VSO



- **Steering Committee**
 - Todd Hoeksema (NASA HQ)
 - Rob Bentley (MSSL, UK; EGSO)
 - Sam Freeland (LMSAL)
 - Steve Walton (CSUN)
 - Dominic Zarro (L-3/GSFC)
- **Study teams**
 - Rick Bogart, Karen Tian (Stanford)
 - Frank Hill [EGSO, NVO], Steve Wampler (NSO)
 - Piet Martens, Alisdair Davey (MSU)
- **NASA**
 - Chuck Holmes (MO&DA Program Manager)
 - Joe Gurman (GSFC/SDAC; *de facto* project scientist)
 - George Dimitoglou (L-3/GSFC)
 - [currently, the only VO NASA is supporting]
- **And you**
 - This meeting
 - Community workshop at Fall AGU
 - Implementation phase (competitive)
 - Any input, any time

VSO resources online



- **VSO homepage:**
 - <http://virtualsolar.org/>
- **Study team sites:**
 - <http://vso.stanford.edu/>
 - <http://vso.nso.edu/>
- **Study proposal(s):**
 - <http://sun.stanford.edu/~rick/propose/vso/>